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## Language Supportive Teaching and Textbooks in Tanzania

# Language, Learning and Textbooks

## Findings from baseline survey of Form 1 students and teachers

Secondary school students in Tanzania need a new kind of textbook that is easy to read and supports them to learn English and to learn in English.

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The majority of Form 1 students, in their first year of secondary education, are not ready to use English for academic purposes. Textbooks do nothing to help. Form 1 textbooks that claim to be designed for the Tanzanian syllabus are **unreadable** by most Form 1 students. They take no account of the well-known fact that the majority of lower secondary students in Tanzania, who had their primary education through the medium of Kiswahili, are not proficient in English. The textbooks use difficult language, long sentences and have whole pages of dense text. Fluent English speakers at the same stage in their education would struggle to read many Tanzanian textbooks.

This is the main finding from LSTT's baseline survey of 420 students and 63 teachers in 21 schools. LSTT also analysed the readability of a selection of Form 1 textbooks for Biology, English and Mathematics.

### About LSTT

This research brief is based on baseline findings of the project, Strengthening Secondary Education in Practice: Language Supportive Teaching and Textbook in Tanzania (LSTT). LSTT is a collaboration between the University of Bristol, University of Dodoma, Aga Khan University Institute of Education – East Africa Campus, and the Tanzania Institute of Education. It is funded through the Partnership to Strengthen Innovation and Practice in Secondary Education (PSIPSE) for the period 2013-2015. The overarching goal of LSTT is to make textbooks and teaching accessible to students, who are making the transition from Kiswahili-medium primary schools to English-medium secondary schools through piloting language supportive innovations in disadvantaged rural schools.

The full baseline report is available at:  
[www.bristol.ac.uk/education/people/project/1867](http://www.bristol.ac.uk/education/people/project/1867).

### Key Recommendations

Secondary school textbooks across all subjects should be **language accessible**, i.e. easy to read, and **language supportive**, i.e. support students to improve their English proficiency.

Secondary school textbooks should be reviewed by language experts as well as subject experts before being recommended for Tanzanian secondary schools.

English textbooks for primary and secondary schools should support learning of English for academic purposes as well as for informal purposes.

## Main Findings: Textbooks unusable by Form 1 students

### **The large majority of Form 1 students are not ready to learn through the medium of English.**

They struggle to read simple stories and do not know the subject specialist vocabulary used in Biology and Mathematics. **Using English in secondary school prevented students building on knowledge from primary school.** Our data does not support the use of English as the medium of instruction for Tanzanian secondary schools.

### **Most schools do not have class sets of textbooks**

Out of 21 schools, only 3, 9 and 7 had class sets of a Biology, English or Mathematics textbook respectively. Very few students said they had their own books. The problem was most acute in Lindi, where only one out of seven schools had a class set of Mathematics textbook and none had a class set of an English or Biology textbook. Only one out of 66 students that we spoke to in Lindi owned their own copy of a textbook.

### **One textbook cannot meet all the needs of students and teacher**

Teachers and students want different things from textbooks. One textbook cannot meet all their needs. For example, some teachers want books to keep their knowledge content one step ahead of students. Other teachers want books to provide extra questions they can use to assess student learning.

However, both teachers and students want text and illustrations that work together to explain content clearly and directly. Students are heavily dependent on illustrations to help them understand concepts. All 210 students that we spoke to wanted glossaries that translate key English words into Kiswahili.

### **Textbooks are difficult to read**

Form 1 Biology textbooks marketed as compatible with the current Tanzanian syllabus use very difficult language that Form 1 students cannot read. This finding applies to books by local and international publishers. The language demands of Biology textbooks are greater than Form 1 English textbooks and out of step with the Tanzanian English syllabus. Indeed, they are harder to read than secondary school Biology textbooks designed for England and other countries, where most students are fluent English speakers.

English textbooks and most Mathematics textbooks use simpler language but around one half of our sample of students would still struggle to read them.

### **Textbooks do not support transition to English medium**

Textbooks made no allowance for the fact that their intended users are not fluent in English except to offer explanations of key words in English. Kiswahili was never used. Biology and Mathematics textbooks did use illustrations to explain meaning. Only English textbooks had activities that support students to talk, write and read in English.

English textbooks focus on developing proficiency in informal English. Nowhere in the curriculum are students offered textbooks that prepare them to use English for academic purposes.

### **Textbooks do not support interactive learning**

Textbooks, particularly those published by Tanzanian publishing houses, offer few or no ideas for activities that support interactive learning. The syllabus specifies the use of interactive teaching and learning techniques. Activity based learning also supports language acquisition.

## Recommendations: A new kind of textbook for Form 1

### Using Kiswahili and English in the classroom

Students learn best through a language in which they are already fluent. For most Form 1 students in Tanzania that language is Kiswahili.

If the language of instruction is English, however, using Kiswahili as well as English in the classroom helps students learn subjects **and** learn English quicker and better.

### How does this work?

Students need to process new information through talking about it in Kiswahili. As a next step, they can then try to translate their ideas into English. This is true for Form 1 to 4 but is especially important for students in Form 1 and 2. Using Kiswahili in the classroom allows students in Form 1 and 2 to recall and build on what they learned in Kiswahili-medium primary school.

Language supportive textbooks provide structured activities that use Kiswahili as a step to learning in English.

### Language accessible textbooks

Language accessible textbooks are easy to read. They have the following features.

1. Written in simple English using short sentences.
2. Contain glossaries that translate subject specialist words and difficult words into Kiswahili. This helps students to connect to what they learned in primary school and build on this knowledge in secondary school.
3. Text is broken down into short chunks through use of short paragraphs, short sections with clear sub-headings and bulleted or numbered lists.
4. Plenty of illustrations convey the meaning of text and break up long chunks of text.

### Language Supportive Textbooks

Language supportive textbooks include activities that help students to talk, write and read English. Because language-supportive teaching is activity-based it is consistent with the teaching methods stipulated in the Tanzanian syllabus. Activities that support learning in English include the following.

**Talking activities:** Students learn concepts best in a language in which they are fluent. First students discuss in Kiswahili. Second, they write their conclusion as a simple sentence in English. Third, they read the sentence out loud. In this way they process the subject content three times and practice writing and talking about the concept in English.

**Structured writing activities:** Students in Form 1 struggle to write complete sentences in English. They need support to structure sentences. They have very little vocabulary in English, particularly subject specialist vocabulary. Textbooks can provide students with a short list of key words to use in a writing activity.

**Reading activities:** Students need to practice reading, including reading out loud so that teachers can correct their pronunciation. Limited vocabulary is a major barrier to understanding text so reading exercises need to be accompanied by a glossary and/or illustration to help them access meaning.

## The Baseline Research

### Research in schools

#### Sample

We collected data in 21 schools in Morogoro, Dodoma and Lindi regions. The sample included 16 community schools and 15 rural schools (see table 1).

	Urban	Rural	Total
Government	3	2	5
Community	3	13	16
Total	6	15	

Table 1: Sample of schools

#### Data collection

In all 21 schools, we measured the reading ability and knowledge of specialist Biology and Mathematics words of 20 students, making a total sample of 420 students.

In all 21 schools, we surveyed the Form 1 Biology, English and Mathematics teachers asking about their qualifications, and which textbooks they use and how. We also asked them to comment on pages from two contrasting textbooks. We added a glossary to one of the texts.

In 13 schools we interviewed a group of six students about how they accessed and used in textbooks. In the other 8 schools, we interviewed three groups of six students, each group focusing on one subject out of Biology, English and Mathematics. We asked the students how they accessed and used textbooks. We also showed them the two textbook excerpts, asked them to attempt the questions and to comment on the texts. In total, we interviewed 222 students.

### Textbook Analysis

We analysed between three and eight textbooks for each subject (Biology, English and Mathematics). The review focused on Form 1 Tanzanian textbooks but we also looked at Biology and Mathematics textbooks from England, USA and India. Analysis looked at readability of the text and how the text supports students to learn English, to understand and use concepts in English.

### Research Team

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### Further Reading

Barrett, A.M., Mtana, N., Osaki, K. & Rubagumya, C. (2014) [Baseline Study Report](#), Strengthening Secondary Education in Practice: Language Supportive Teaching and Textbooks in Tanzania (LSTT). February 2014.

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